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(71) Applicant (for all designated States except US): BP OIL INTERNATIONAL LIMITED [GB/GB]; Britannic House, 1 Finsbury Circus, London EC2M 7BA (GB).		
(72) Inventor; and (75) Inventor/Applicant (for US only): PIDGEON, Ian, Charles [GB/GB]; 4 Barncroft Way, St. Albans, Herts AL1 5QZ (GB).		
(74) Agent: WILSON, Michael, John; BP International Limited, Patents & Agreements, Chertsey Road, Sunbury on Thames, Middlesex TW16 7LN (GB).		(43) Published With international search report.

  

(54) Title: PURIFICATION PROCESS

  
  

(57) Abstract

The present invention provides apparatus and a process capable of reducing the sulphur content of the gasoline product resulting from the cracking of a high molecular weight hydrocarbon feed comprising sulphur which comprises at least three concurrent steps: (a) passing input fluid comprising pollutant through at least one adsorber to produce a polluted adsorber and a purified fluid stream (of reduced pollutant content), which leaves the adsorber, stopping the flow into said adsorber to leave residual fluid therein, and separating said residual fluid from said adsorber to leave the polluted adsorber of reduced residual fluid content, (b) heating a polluted adsorber with a heated regeneration gas to produce a hot adsorber (of reduced pollutant content) and cooler regeneration gas (of increased pollutant content), (c) contacting a heated adsorber (of reduced pollutant content) with a regeneration gas (of a lower temperature than that of said adsorber) to produce a cooler adsorber and a warmer regeneration gas, which gas is further heated to produce said heated regeneration gas which is passed to step (b), said process comprising at least 3 adsorbers, at least one of which is being subjected to step (a), at least one different adsorber to step (b) and at least one further different adsorber being subjected to step (c), and after completion of one step the adsorber produced is subjected to the next step in the cyclic sequence (a)-(b)-(c)-(a).